Integrated Innovation Institute

Master of Science in Technology Ventures
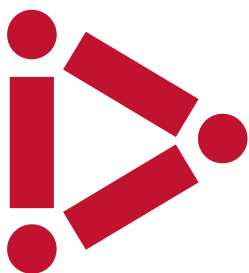Applied Engineering Courses – Spring 2022

Biomedical Engineering

42-630, Introduction to Neuroscience for Engineers
42-632, Neural Signal Processing (Cross-listed with 18-698)
42-613, Polymeric Biomaterials (9-units)
42-648, Cardiovascular Mechanics
42-661, Surgery for Engineers (9-units)
42-670, Biomaterial Host Interactions in Regenerative Medicine
42-673, Stem Cell Engineering (9-units)
42-678, Medical Device Innovation & Realization
42-737, Biomedical Optical Imaging
42-696, ST: Wearable Health Technologies

Chemical Engineering

06-607 Physical Chemistry of Colloids & Surfaces (9 units)
06-663, Analysis and Modeling of Transport Phenomena
06-665, Process System Modeling
06-681, Special Topics: Data Science & Machine Learning in Chemical Engineering (6-units)
06-702, Advanced Reaction ti Kinetics (PhD Core)
06-704, Advanced Heat & Mass Transfer (PhD Core)
06-720, Advanced Process Systems Engineering (PhD Core)

Civil and Environmental Engineering

12-711, BIM for Engineering, Construction and Facility Management
12-714, Environemtnal Life Cycle Assessment
12-724, Biological Wastewater Treatment

12-728, Remediation Engineering
12-735, Urban Systems Modeling
12-749, Climate Change Adaptation (6 units)
12-750 Infrastructure Management (Cross-listed with 19-617)
12-774, Foundations of Intelligent Infrastructure Systems
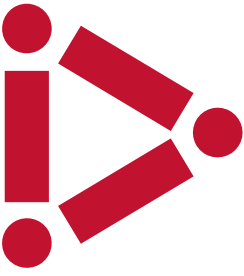
College of Engineering
39-603, Additive Manufacturing Laboratory (Cross-listed with 27-701 & 24633)

Electrical and Computer Engineering
18-612, Neural Technology: Sensing & Stimulation
18-613, Foundations of Computer Systems
18-616, Nano-Bio-Photonics (Cross-listed with 18-416)
18-631, Introduction to Information Security
18-646, How to Write Fast Code II
18-660, Optimization
18-662, Principles & Engineering Applications of AI
18-668, Statistical Discovery & Learning
18-698, Neural Signal Processing (Cross-listed with 42-632)
18-733, Applied Cryptography
18-738, Sports Technology
18-741, Computer Networks
18-743, Neuromorphic Computer Architecture & Processor Design
18-745, Rapid Prototyping of Computing Systems (Cross-listed with 05-872 & 39-648)
18-787, Data Analytics

Materials Science and Engineering
27-701, Additive Manufacturing Laboratory (Cross-listed with 24-633 & 39-603)
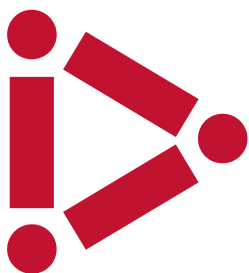27-705, Nanostructured Materials

27-715, Applied Magnetism & Magnetic Materials

27-731, Texture, Microstructure, and Magnetic Materials

27-742, Processing and Properties of Thin Films

27-752, Fundamental of Semiconductors and Nanostructures

27-764 Special Topics: Data Analytics for Materials Science

Mechanical Engineering

24-629, Direct Solar & Thermal Energy Conversion

24-633, Additive Manufacturing Laboratory (Cross-listed with 27-701 & 39603)

24-651 Materials Selection for Mechanical Engineers

24-671, Special Topics: Electromechanical Systems Design

24-672, Special Topics in DIY Design and Fabrication

24-673, Soft Robots - Mechanics, Design and Modeling

24-678, Special Topics: Computer Vision for Engineers

24-775, Special Topics: Robot Design and Experimentation

24-778, Mechatronic Design (Cross-listed with 16-778, 18-578, & 24-778)

24-787, Machine Learning & Artificial Intelligence for Engineers

24-789, Special Topics: Deep Learning for Engineers

School of Computer Science

05-818, Design Educational Games

15-650, Algorithms & Advanced Data Structures

15-686, Neural Computation

15-694, Congitive Robots

16-761, Mobile Robots

16-785, Integrated Intelligence in Robotics: Vision Language Planning: Social Robots

16-887 – ST: Robotic Caregivers & Intelligent Physical Collaboration

17-634, Applied Machine Learning (6 units)

17-636, Applied Distributed Systems

17-637, Web Application Development

17-644, Applied Deep Learning (6 units)
17-647, Data Intensive & Scalable Systems

INI

14-741, Introduction to Information Security
14-813, Special Topics: Security & Privacy Enhancing Technologies

EPP

19-670 – Quantitative Entrepreneurship: Analysis for New Technology Commercializing

HCI

05-617, Design of Artificial Intelligence Products
05-795, Applications of Cognitive Science
05-834 – Applied Machine Learning
05-692 – Interaction Design Overview

Last updated: 11/30/21